

5.10 SOCIOECONOMICS

In this section, socioeconomics for the proposed PEF Expansion are addressed. The environmental consequences of developing the PEF Expansion are also discussed, along with the Conditions of Certification from 99-AFC-7, as modified through license amendments. Issues considered in this discussion include project-related impacts to population, housing, services and utilities, county tax revenue, and economic benefits from the project.

The PEF Expansion consists of a nominal 160 MW simple cycle combustion turbine generator. The PEF Expansion area will be approximately two acres located entirely within the existing PEF 31-acre site boundary. The PEF Expansion requires no modification to the existing PEF offsite linear facilities (e.g., electric transmission line, fuel gas supply line, or water supply line). The PEF Expansion will use the existing PEF administration and control, warehouse and shop, and water treatment buildings. Site access and onsite roadways are common with the existing PEF. Figure 3.1-1 of this application depicts the new facilities required for the PEF Expansion project within the footprint of the existing PEF.

5.10.1 Affected Environment

The affected environment for the PEF Expansion is generally as described in 99-AFC-7, as amended. The Socioeconomics Section 5.10 of 99-AFC-7 is included for reference as part of Attachment I, appended to this application.

5.10.2 Environmental Consequences

With the exception of the addition of the new turbine, the environmental consequences for the PEF Expansion project are consistent with the evaluation contained in Section 5.10 of 99-AFC-7 (refer to Attachment I).

5.10.2.1 Peak Construction Workforce

Construction activities associated with the PEF Expansion project will last 12 months, and will commence after the completion of the existing PEF construction period. This schedule is based on a single-shift, 40-hour workweek. Overtime and shift work may be used to maintain or enhance the construction schedule. Tables 3.8-2 and 3.8-3 of this application present the workforce loading by month and by craft, respectively, for the PEF Expansion construction. The number of workers at the site will be fewer than 130 in the first four months of construction. Peak construction for the PEF Expansion would occur in months 6 through 9. In the 6th month of construction, there will be about 193 workers at the plant site. The peak

construction employment will occur during the 7th month, when there will be 225 workers at the plant site. In the 8th month, 218 workers will be employed for the PEF Expansion.

The existing PEF will be staffed with about 25 permanent employees. The PEF Expansion will require no additional permanent employees. These employees will be managers, engineers, equipment operators, maintenance, and security staff. Table 5.10-1 shows maximum and average project labor needs and available labor by craft and skill.

5.10.2.2 Population

Project construction could result in a temporary increase in the project area population. A population increase will depend on the number of non-local workers that need to relocate to the project area, and the family size of those workers. The methodology used in 99-AFC-7 assumed that all field staff would be non-local workers, and all other workers were assumed to be local workers. As shown in Table 3.8-2 and summarized in Table 5.10-1, the number of field staff will vary from 15 during the first three months, to a peak of 35 during the four-month peak of construction. An estimated 30 field staff will be required over an eight-month consecutive period through month 11; the number of field staff will then decline through the remainder of the 12-month construction period. Based upon Calpine's experience during the construction of the existing PEF, the field staff and their dependents did not move to Kern County. Rather, the field staff commuted from other locations outside of Kern County. However, for the purpose of this review in disclosing a worst-case analysis, it is assumed that half of the 30 field staff, or 15 field staff will be non-local, and will relocate during the construction period, and that all other labor categories will not require relocation. Assuming a household size of 3.04 for the 15 non-local workers (average household size for Kern County in 2003), the total population increase associated with the PEF Expansion will be about 45 persons during the 12-month construction period. However, as noted above, the actual number of persons relocating to the project area is expected to be less than 45 because dependents have not typically accompanied non-local workers to this site.

Table 5.10-2 presents the likely distribution of these non-local households and the resulting population increases. Of the anticipated 15 household (45 person) population increase, it is estimated that ten households will locate in Bakersfield, two households will locate in Delano, and the three remaining households will relocate in another area of Kern County (including Arvin, McFarland, Shafter, Maricopa, Taft, Wasco, and Tehachapi), or in Southern California. These increases present a negligible change in the population of these communities.

TABLE 5.10-1
PROJECT LABOR NEEDS AND AVAILABLE LABOR BY CRAFT/SKILL

Craft	Total Number of Workers in Kern County 2004¹	Number of Workers Available 2004²	Maximum Number of Workers Needed for the Project³	Average Number of Workers Needed for the Project	California OES Code
Specialized Insulation Workers	80	110	10	5	878020
Boilermakers/ ironworkers	510	650	18	10	891000
Carpenters	970	1,130	12	7	871020
Electricians	1,320	1,610	26	18	872020
Laborers	1,560	1,840	26	19	983000
Millwrights	70	70	12	6	851230
Operating Engineers	940	1,040	6	3	950990
Painters	430	500	12	7	874000
Pipefitters	960	1,120	30	20	875020
Plasterers/Cement Masons	650	740	10	5	873110
Mechanical Equipment Erection Workers	--5	--5	26	16	931111
Field Staff	340	470	35	28	150170
Teamsters	4,110	4,350	2	2	971020

¹ Data from the State of California, Employment Development Department (EDD), Labor Market Information, Table 6, Occupational Employment Projections 2001 - 2008. Total workers calculated from the 2004 EDD estimated workforce for Kern County. (State of California Employment Dev. Dept., 2004).

² Data from the State of California, EDD, Labor Market Information, Table 6, Occupational Employment Projections 2001 - 2008. Total workers calculated from the 2004 EDD estimated workforce for Kern County.

³ The maximum number of workers by each craft would be needed at different points in time during project construction. Refer to Table 3.8-3.

⁴ California OES Code for EDD Occupational Employment Project Data. Codes correlate to the craft/skill noted in this table.

⁵ Data not available.

TABLE 5.10-2
DISTRIBUTION OF AVERAGE NUMBER OF NON-LOCAL WORKER
HOUSEHOLDS IN STUDY AREA COMMUNITIES
(CONSTRUCTION AND OPERATION)¹

Community	Existing PEF Operations Phase				Construction Phase for PEF Expansion			
	Permanent Employees	School-Aged Children	Other Dependents	Total	Contractor Staff	School-Aged Children	Other Dependents	Total
Bakersfield	9	8	9	26	10	10	10	30
Delano	2	2	2	6	2	2	2	6
Wasco	1	1	1	3	1	1	1	3
Arvin	1	1	1	3	1	1	1	3
Other areas of Kern County and LA County ²	0	0	0	0	1	1	1	3
Total	13	12	13	38	15	15	15	45

¹ These numbers are based on the average number of non-local workers and on an average household size of 3.04 persons. The distribution was developed proportionate to the existing populations of the listed communities.

² Includes McFarland, Shafter, Taft, Tehachapi, and other areas of Kern and Los Angeles Counties.

5.10.2.3 Employment and Economy

Consistent with the methodology used in 99-AFC-7, which used the IMPLAN Model to estimate the number of direct and indirect employment associated with construction, construction of the PEF Expansion will generate an estimated average of 175 construction jobs at the plant site during construction. Using a multiplier of 3.23 for construction employment for major facilities in Kern County, these 175 direct jobs would support an additional 565 secondary jobs in Kern County during the construction period.

5.10.2.4 Housing

Construction of the PEF Expansion will result in an increase of 15 non-local workers. As discussed in Section 5.10.2.2, it is estimated that ten households will locate in Bakersfield, two households will locate in Delano, and the three remaining households will relocate in another area of Kern County (including Arvin, McFarland, Shafter, Maricopa, Taft, Wasco, and Tehachapi), or in Southern California. The availability of housing resources is presented in Table 5.10-5 of Section 5.10 of 99-AFC-7 included for reference as part of Attachment I of this application, and is considered to be adequate to meet this demand without significantly lowering the vacancy rates in the affected communities. At peak, the 15 non-local workers will require about ten units in Bakersfield, two units in Delano, and three additional units distributed among other areas of Kern County (including Arvin, McFarland, Shafter, Maricopa, Taft, Wasco, and Tehachapi), or in Southern California.

5.10.2.5 Schools

Based on the same assumptions used to estimate population and housing impacts of the proposed project, about 15 new school children will be added to local enrollments during the 12-month construction of the PEF Expansion. Table 5.10-2 illustrates the number of school age children and total population increase from the non-local work force. This estimate is conservative because it is based on the assumption that all of the non-local workers will be accompanied by dependents, and that all dependents other than the spouse will be school-aged children.

5.10.2.6 Cumulative Impacts

Even with the increase in construction, no significant cumulative socioeconomic impacts associated with construction or operation of the PEF Expansion project are anticipated. This project is not expected to be growth inducing.

5.10.3 Mitigation Measures

The Applicant intends to apply the applicable Conditions of Certification for the existing PEF to the PEF Expansion to mitigate any socioeconomic impacts. The Conditions of Certification for 99-AFC-7 are included in Section 9.0 of this application. With the implementation of the applicable Conditions of Certification, no significant unavoidable adverse socioeconomic impacts are anticipated due to construction or operation of the PEF Expansion.

5.10.4 LORS Compliance

The PEF Expansion will comply with all applicable LORS related to socioeconomics. A complete list of the applicable LORS for socioeconomics is included in Section 7.0 LORS of this application.

5.10.5 References

The socioeconomic references for the existing PEF are applicable to the PEF Expansion. The references from Section 5.10 of 99-AFC-7 are included as part of Attachment I of this application. Updated references are provided below.

Kern County Employment Development Department. 2004. Labor Market Information and Industry Employment Projections (1). 2001-2008.

US Census Bureau. 2003. The Official Statistics 2000. Selected Tables, Kern County.